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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,375	02/12/2001	Jos Timmermans	AEI-172-B	9750

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EXAMINER
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TRAN, CHUC

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/782,375

Applicant(s)

TIMMERMANS ET AL.

Examiner

Chuc D Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,5-7 and 14-20 is/are allowed.
- 6) ☒ Claim(s) 1,9-11 and 21-27 is/are rejected.
- 7) ☒ Claim(s) 4,12,13 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 9-10, 21-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

1. Claim 26 is objected to because of the following informalities:
  - In listing of the claims, pages 7, line 3, "26. (New)" change to - - 28. (New) - -.Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. Claims 22 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter "a first prong, a second prong, a first and a second terminal" in claim 22 and "means for protection against an over current condition" in claim 23 which were not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 9-10 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu (USP. 5,949,347).

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Regarding claim 1, Wu disclose light emitting diode comprising:

- a bulb portion (56) (Fig. 3);
- a first end cap (28) disposed at one end of the bulb portion (Fig. 3); and
- plurality of light emitting diodes is mounted at an angular off set from circuit board (24) (Fig. 3) to establish a predetermined radiation pattern of light (Abstract) (Col. 1, Line 58), in communication with the end cap (28) in response to electrical current received from the power supply (Col. 4, Line 4).

Regarding claim 9, Wu disclose that, the plurality of light emitting diodes is mounted on only one side of the at least one circuit board (Fig. 3).

Regarding claim 10, Wu disclose that the radiation pattern of light from each of the plurality of light emitting diodes is center at a 90 degree angle relative to the at least one circuit board (Fig. 3).

Regarding claim 21, Wu disclose that the bulb portion comprise of clear glass (Fig. 3).

6. Claims 22-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Madadi et al (USP. 5,688,042).

Regarding claims 22, Madadi et al disclose LED lamp comprising:

- an elongated cylindrical transparent envelope (10) (Fig. 1);
- a base cap (20), wherein the base cap is an electrical bi pin connector (20a) comprising a first prong and a second prong (58) extending perpendicularly from the surface of the base cap (20) (Fig. 2), wherein the first and second prongs are adapted to electrically communicate with a fluorescent light socket (Col. 4, Line 24;
- at least one led device (12) (Fig. 1) in electrical communication with the base cap

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(Col. 4, Line 4); wherein

- the LED device electrical communication with the first and second prong (Col. 3, Line 36) (Col. 4, Line 29).

Regarding claim 23, Madadi et al disclose that means for protection (29) against an over current condition (Col. 4, Line 66) (Fig. 9).

Regarding claim 24, Madadi et al disclose that the LED device (12) comprises a plurality of LEDs (26) serially connected to a circuit board (24) (Fig. 9).

Regarding claim 25, Madadi et al disclose that current limiting means (29) coupled to at least one LED device (12) (Fig. 9) (Col. 4, Line 66).

Regarding claim 26, Madadi et al disclose that the at least one LED device (12) is electrically connected to a rectifier (Fig. 9) (Col. 4, Line 65).

Regarding claim 27, Madadi et al disclose that the base cap (20) has circuitry means for connection with an AC source (Col. 3, Line 55&65) (Fig. 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Allen (USP. 6,072,280).

Regarding claim 11, Wu disclose light emitting device set forth in the claims except each

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of the plurality of light emitting diodes is a white LED. Allen disclose LED light string comprising each of the plurality of light emitting diodes is a white LED (Col. 3, line 60). Thus, it would have been obvious to any one of ordinary skill in the art at the time the invention was made to provide each of the plurality of light emitting diodes being a white LED as taught by Allen in Wu in order to allow white light output of good color rendering index without employing a RGB sub die combination (Col. 1, Line 30).

***Allowable Subject Matter***

8. Claims 3, 5-7, 14-20 are allowed.

Claims 4, 12-13 and 28 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to appreciate the advantage offered by light tube and power supply circuit with the following distinctive features such as set by all of the independent claims. In particular, the art of record fails to teach or fairly suggest constructing a pair of bi-pin end caps coupled opposed ends of the bulb portion and engageable with the fluorescent light tube socket, wherein the plurality of closely-spaced light emitting diode banks disposed inside a bulb portion of the light tube posses all of the distinctive features such as defined by independent claims 3, 5, 16 and 18.

***Citation of relevant prior art***

Prior art Johnson (USP. 5,463,280) disclose light emitting diode.

Prior art Hong (USP. 6,621,222) disclose power saving lamp.

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Prior art Yan (USP. 5,726,535) disclose LED retro lift lamp.

Prior art Bischoff, Jr. (USP. 6,158,882) disclose led lighting system.

Prior art Chliwnyj et al (USP. 5,924,784) disclose microprocessor based simulated electronic flame.

Prior art Popovich et al (USP. 6,582,103) disclose lighting apparatus.


***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC  
April 12, 2004

  
**Wilson Lee**  
**Primary Examiner**